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Response to Treasury Department and Internal Revenue Service Request for Comments on Credits for Clean Hydrogen and Clean Fuel Production, Notice 2022-58

Shell USA, Inc. (Shell) is pleased to offer these comments in response to the Treasury Department and Internal Revenue Service Request for Comments on Credits for Clean Hydrogen and Clean Fuel Production, Notice 2022-58.

Shell supported the Inflation Reduction Act of 2022 (IRA) by signing a letter alongside other major corporations calling on Congress to pass the IRA. We believe the IRA moves the US forward towards its own climate goals and overall supports Shell's Powering Progress strategy which includes a global target to be net zero by 2050.

Becoming a net-zero emissions energy business means reducing CO_2 point source emissions from operations in addition to the fuels and other energy products sold to customers including sustainable aviation fuel, hydrogen and biofuels.

Shell appreciates this opportunity to help inform the implementation of the IRA clean energy credits through this letter as well as our participation in the various trade associations submitting comments.

Yours sincerely,

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.01 Credit for Production of Clean Hydrogen

Shell believes that defining clean hydrogen by carbon intensity is key. The California Air Resources Board (CARB) has provided best practices and it would make sense to follow their lead, especially since they lead the country in renewable fuel incentives. Similarly, it would be of value to incorporate their GREET model.

In addition, book & claim for renewable natural gas (RNG) and renewable energy credits need to be eligible to reduce carbon intensity. It is eligible in California and considered in the GREET model.

Lastly, in respects to RNG, co-locating the renewable feedstock with hydrogen production is not generally practical.

(1) Clean Hydrogen. Section 45V provides a definition of the term "qualified clean hydrogen." What, if any, guidance is needed to clarify the definition of qualified clean hydrogen?

The definition is clear, however Shell would like to reiterate from our comments on the Clean Hydrogen Production Standard that the carbon intensity of hydrogen should be based on a life cycle analysis (LCA) and thus technology agnostic.

(a) Section 45V defines "lifecycle greenhouse gas emissions" to "only include emissions through the point of production (well-to-gate)." Which specific steps and emissions should be included within the well-to-gate system boundary for clean hydrogen production from various resources?

Well-to-gate would exclude midstream, downstream, or any scope 3 emissions. With this exclusion, the definition of 'lifecycle greenhouse gas emissions" would then include feedstock emissions, hydrogen production, and any hydrogen purification or compression on site.

(b)(i) How should lifecycle greenhouse gas emissions be allocated to co-products from the clean hydrogen production process? For example, a clean hydrogen producer may valorize steam, electricity, elemental carbon, or oxygen produced alongside clean hydrogen.

ISO stipulates that system expansion should be used whenever possible to avoid allocation. However, system expansion can be difficult to implement in practice because there needs to be clarity around what is being displaced from the market and the associated greenhouse gas (GHG) footprint. To avoid diverging results for similar systems, the DOE should provide specific guidance on the GHG credit values tied to certain co-products when system expansion is used (similar to the approach CARB uses in CA-GREET).

In other instances, particularly when it is difficult to determine the product displaced from the market, or the co-products are energy carriers (e.g. electricity), it could be more meaningful to use energy allocation. Mass allocation rarely results in a meaningful comparison given the utility of different products, so should only be used if system expansion is impractical and energy allocation is not meaningful for the relative utility of the products.

(ii) How should emissions be allocated to the co-products (for example, system expansion, energy-based approach, mass-based approach)?

See above.

(iii) What considerations support the recommended approaches to these issues?

See above.

(c)(i) How should lifecycle greenhouse gas emissions be allocated to clean hydrogen that is a by-product of industrial processes, such as in chlor-alkali production or petrochemical cracking?

If the decision to produce by-product hydrogen has consequences that impact the GHG emissions of an industrial plant, this impact should be accounted for in the LCA of the hydrogen. For example, if by-product hydrogen that is currently being used in burners is diverted from this existing use and is replaced in the burners with natural gas or another fuel source that produces GHG emissions, then such hydrogen should bear the GHG burden of the substitute fuel.

(ii) How is byproduct hydrogen from these processes typically handled (for example, venting, flaring, burning onsite for heat and power)?

How by-products are handled will vary depending on the production pathway. Typically, the by-product hydrogen produced is recycled back into the process as feedstock for combustion or used, and in other cases, vented.

(d) If a facility is producing qualified clean hydrogen during part of the taxable year, and also produces hydrogen that is not qualified clean hydrogen during other parts of the taxable year (for example, due to an emissions rate of greater than 4 kilograms of CO2-e per kilogram of hydrogen), should the facility be eligible to claim the § 45V credit only for the qualified

clean hydrogen it produces, or should it be restricted from claiming the § 45V credit entirely for that taxable year?

The facility should be able to claim the credit for a partial year. For example, if a blue hydrogen process faces issues with capture or storage and continues to produce hydrogen that does not qualify as clean, the facility should be allowed to claim credit for the part of the year it did produce clean hydrogen. This flexibility is important to incentivise the production of clean hydrogen. An alternative would be to have the carbon intensity of hydrogen averaged, given that the input carbon intensities are generally averaged.

(e) How should qualified clean hydrogen production processes be required to verify the delivery of energy inputs that would be required to meet the estimated lifecycle greenhouse gas emissions rate as determined using the GREET model or other tools if used to supplement GREET?

A periodic auditing and verification process could be implemented, similar to CARB. Certified verifiers check plant operations against modelled data and update the LCA data as necessary. Aligning this with existing verification processes (like CARB) would make it much easier to implement in practice.

(i) How might clean hydrogen production facilities verify the production of qualified clean hydrogen using other specific energy sources?

No specific comment.

(ii) What granularity of time matching (that is, annual, hourly, or other) of energy inputs used in the qualified clean hydrogen production process should be required?

Required monthly, which would not be too onerous and ensure credibility.

2 Alignment with the Clean Hydrogen Production Standard. On September 22, 2022, the Department of Energy (DOE) released draft guidance for a Clean Hydrogen Production Standard (CHPS) developed to meet the requirements of § 40315 of the Infrastructure Investment and Jobs Act (IIJA), Public Law 117-58, 135 Stat. 429 (November 15, 2021). The CHPS draft guidance establishes a target lifecycle greenhouse gas emissions rate for clean hydrogen of no greater than 4.0 kilograms CO2-e per kilogram of hydrogen, which is the same lifecycle greenhouse gas emissions limit required by the § 45V credit. For purposes of the § 45V credit, what should be the definition or specific boundaries of the well-to-gate analysis?

The DOE should follow the lead of the IRS.

3 Provisional Emissions Rate. For hydrogen production processes for which a lifecycle greenhouse gas emissions rate has not been determined for purposes of § 45V, a taxpayer may file a petition with the Secretary for determination of the lifecycle greenhouse gas emissions rate of the hydrogen the taxpayer produces.

(a) At what stage in the production process should a taxpayer be able to file such a petition for a provisional emissions rate?

A taxpayer should be able to petition for a provisional emissions rate at any stage before, during or after production so long as the petition is filed before the time the tax credit is claimed on the applicable tax return.

Taxpayers should be able to file a petition for a provisional emissions rate well ahead of taking Final Investment Decision (FID). Without more certainty as to the qualification and expected amount of the tax credit, many clean hydrogen projects could forego FID hence leading to significant delays to the rollout of clean hydrogen. Post FID, independent checks could be completed to ensure the project has met its promise and can continue to benefit from the tax credits as agreed. In summary, taxpayers should be able to file for a provisional emissions rate in the project concept select phase when the GREET model is able to analyze inputs to determine the lifecycle greenhouse gas emissions rate.

Flexibility to file for a provisional emissions rate later in the process is also appreciated.

(b) What criteria should be considered by the Secretary in making a determination regarding the provisional emissions rate?

Look to CARB's Tier 2 pathway process.

4 Recordkeeping and Reporting.

Recordkeeping and reporting standards should rely on existing federal or state processes where possible and appropriate. The standards should be narrowly tailored and fit for purpose to substantiate the thresholds and prove the credit requirements have been met. The standards should also recognize that these credits are likely to be sold to an unrelated taxpayer and consider how the recordkeeping and reporting will follow the credit to the purchasing taxpayer.

(a) What documentation or substantiation do taxpayers maintain or could they create to demonstrate the lifecycle greenhouse gas emissions rate resulting from a clean hydrogen production process?

Documentation on mass balance for emissions with a verification procedure.

(b) What technologies or methodologies should be required for monitoring the lifecycle greenhouse gas emissions rate resulting from the clean hydrogen production process?

This needs to be flexible, please refer to the Low Carbon Fuel Standard (LCFS) for examples of what Shell believes are sufficiently flexible standards for lifecycle GHG monitoring.

(c) What technologies or accounting systems should be required for taxpayers to demonstrate sources of electricity supply?

Renewable energy certificates (REC), power purchase agreements (PPAs), and associated statements should be used. These are important mechanisms for sending a strong market signal for lower GHG intensity power generation, enabling accelerated investments in renewable capacity, while still taking advantage of the economies of scale and load balancing of grid-connected power generation. In many instances, renewable power and hydrogen generation are driven by geographic constraints that do not often overlap. For each project to be optimally located, a commercial agreement is a useful tool that facilitates development and can greatly expand the overall potential of both industries. In some circumstances, RECs generated in the same hydrogen production region could be paired with the grid electricity to produce green hydrogen through electrolysis. Hydrogen producers should be able to benefit from the rapid growth in renewable energy generation development in the near-term to encourage green hydrogen investment. RECs are verified and can be easily tied to regional production. But, while co-locating generation with electrolyzers may seem logical, it is not economically feasible, given the mismatch between the intermittent nature of the generation and the base load demand of the electrolyzer.

However, there need to be safeguards in place to ensure the benefits of renewable power are only claimed once. If a PPA is in place for the power output of a grid-connected wind farm, that power should not also be used to calculate the 'residual' average grid power GHG intensity, because this power is no longer available. Shell believes the GHG Protocol Scope 2 guidance published by the World Business Council for Sustainable Development and the World Resources Institute is useful guidance to follow.

(d) What procedures or standards should be required to verify the production (including lifecycle greenhouse gas emissions), sale and/or use of clean hydrogen for the § 45V credit, § 45 credit, and § 48 credit?

An independently audited mass-balance.

(e) If a taxpayer serves as both the clean hydrogen producer and the clean hydrogen user, rather than selling to an intermediary third party, what verification process should be put in place (for example, amount of clean hydrogen utilized and guarantee of emissions or use of clean electricity) to demonstrate that the production of clean hydrogen meets the requirements for the § 45V credit?

A periodic auditing and third-party verification process could be implemented, similar to the process set forth by CARB where certified verifiers check actual plant operations against modelled data and update the LCA data as necessary.

(f) Should indirect book accounting factors that reduce a taxpayer's effective greenhouse gas emissions (also known as a book and claim system), including, but not limited to, renewable energy credits, power purchase agreements, renewable thermal credits, or biogas credits be considered when calculating the § 45V credit?

Yes. Book and claim with proper controls is the most efficient system to account for power generated using renewable resources and RNG that is used as a feedstock in the hydrogen production process. It also is more cost effective, allowing for accelerated scaling.

(g) If indirect book accounting factors that reduce a taxpayer's effective greenhouse gas emissions, such as zero-emission credits or power purchase agreements for clean energy, are considered in calculating the § 45V credit, what considerations (such as time, location, and vintage) should be included in determining the greenhouse gas emissions rate of these book accounting factors?

On an annual frequency to not be too onerous. California uses nine months, which Shell believes would also be reasonable.

5 <u>Unrelated Parties</u>.

(a) What certifications, professional licenses, or other qualifications, if any, should be required for an unrelated party to verify the production and sale or use of clean hydrogen for the § 45V credit, § 45 credit, and § 48 credit?

It would be helpful to align with similar existing systems like CARB LCFS and credentials required for verification. This ensures alignment for external vendors on the proper certifications and licenses.

(b) What criteria or procedures, if any, should the Treasury Department and the IRS establish to avoid conflicts of interest and ensure the independence and rigor of verification by unrelated parties?

The procedure should be similar to public accounting firms where there is legal separation between the 'advice' arm and the 'audit' arm.

(c) What existing industry standards, if any, should the Treasury Department and the IRS consider for the verification of production and sale or use of clean hydrogen for the § 45V credit, § 45 credit, and § 48 credit?

No specific comment.

6 Coordinating Rules.

(a) Application of certain § 45 rules.

(i) Section 45V(d)(3) includes a reduction for the § 45V credit when tax-exempt bonds are used in the financing of the facility using rules similar to the rule under § 45(b)(3)). What, if any, additional guidance would be helpful in determining how to calculate this reduction?

No specific comment.

(ii) Section 45V(d)(1) states that the rules for facilities owned by more than one taxpayer are similar to the rules of § 45(e)(3). How should production from a qualified facility with more than one person holding an ownership interest be allocated?

Generally, in the case of a partnership that owns a qualified clean hydrogen production facility, the clean hydrogen credit should pass through to the partners in computing their respective tax liabilities. However, a partnership should have the flexibility to manage the allocation of clean hydrogen credits contractually among the partners pursuant to the partnership agreement. Similar to the flip safe harbor rules for tax equity investments in wind projects and carbon capture projects, the IRS should issue guidance regarding the allocation of clean hydrogen credits in partnership flip transactions involving hydrogen facilities. The flip safe harbor would provide a clear path for developers of hydrogen facilities to secure tax equity investment through the "partnership flip" model frequently used in the wind industry.

(b) Coordination with § 48.

(i) What factors should the Treasury Department and the IRS consider when providing guidance on the key definitions and procedures that will be used to administer the election to treat clean hydrogen production facilities as energy property for purposes of the § 48 credit?

No specific comment.

(ii) What factors should the Treasury Department and the IRS consider when providing guidance on whether a facility is "designed and reasonably expected to produce qualified clean hydrogen?"

We recommend a carbon intensity threshold and expected reduction, product purity, and assumed heating value.

(c) Coordination with § 45Q. Are there any circumstances in which a single facility with multiple unrelated process trains could qualify for both the § 45V credit and the § 45Q credit notwithstanding the prohibition in § 45V(d)(2) preventing any § 45V credit with respect to any qualified clean hydrogen produced at a facility that includes carbon capture equipment for which a § 45Q credit has been allowed to any taxpayer?

The IRS should treat multiple unrelated process trains each as a separate facility.

In the event an industrial site has multiple unrelated processes, the IRS should consider allowing qualification for both the § 45V credit and the § 45Q credit if the credits apply to unrelated processes. Limiting this qualification could affect the incentive to invest in clean hydrogen and in carbon capture. Written as-is, it appears that only standalone hydrogen facilities would qualify for the § 45V credit.

7 Please provide comments on any other topics related to § 45V credit that may require guidance.

No further comment at this time.

.02 Clean Fuel Production Credit (§ 45Z).

(1) Sale Definition.

(a) What factors should the Treasury Department and the IRS consider in determining whether an unrelated person purchases transportation fuel for use in a trade or business for purposes of § 45Z(a)(4)(B)?

The term "use in a trade or business" should be interpreted broadly so long as the fuel is "suitable for use as a fuel in a highway vehicle or aircraft" as required the Code Section 45Z(d)(5)(A)(i).

Treasury should not require the taxpayer to verify the actual or intended use of the fuel after the taxpayer sells the fuel to the unrelated person. The unrelated party may use the transportation fuel for a different purpose in its trade or business which may not be known to the taxpayer who produced the fuel. The Congressional intent to reduce carbon emission and incentivize the development of new technologies for lower-carbon fuel alternatives is met by the production of clean transportation fuels, even when the clean transportation fuel is used for another purpose.

Example for IRS consideration: Company A produces ethanol that it designates as suitable for transportation fuel. Company A sells the ethanol to unrelated Company B. Company A and the ethanol meet the criteria under Code Section 45Z for Company A to claim the Clean Fuel Production Credit. Company B is in the business of making sustainable aviation fuel. Company B uses the ethanol in its production process to turn alcohol into jet. Company B then sells the sustainable aviation fuel to an unrelated airline company at retail. Company B and the sustainable aviation fuel meet the criteria under Code Section 45Z for Company B to qualify for the Clean Fuel Production Credit. In this scenario, the Clean Fuel Production credit has been claimed by two different taxpayers within the same value chain. Each taxpayer has met the statutory requirements of the credit. The credit has incentivized the production of the low-carbon transportation fuel. The credit has separately incentivized the production of sustainable aviation fuel. Therefore, multiple objectives within the congressional intent of the credit have been achieved.

(b) What factors should the Treasury Department and the IRS consider in determining whether fuel is sold at retail for purposes of § 45Z(a)(4)(C)?

We agree with comments made by The Coalition for Renewable Natural Gas such that the IRS should make clear that the RNG is "transportation fuel" suitable for use in a highway vehicle and compressing or liquifying the fuel for use in a vehicle does not make it ineligible for the tax credit. The IRS should also allow RNG distributed to CNG/LNG retail stations through commercial pipelines to be considered as fuel sold at retail similar to the claiming of the environmental attributes (e.g., RINs under the RFS program) through a "book and claim" process.

Moreover, we agree with API that taxpayers would benefit from further discussion and consideration relating to the sale of hydrogen, e-fuels, and electricity that have other uses beyond transportation and how those fuels may qualify for the Clean Fuel Production Credit ("CFPC").

(2) Establishment of Emissions Rate for Sustainable Aviation Fuel. Section 45Z(b)(1)(B)(iii) provides that the lifecycle greenhouse gas emissions of sustainable aviation fuel shall be determined in accordance with the Carbon Offsetting and Reduction Scheme for International Aviation or "any similar methodology which satisfies the criteria under § 211(o)(1)(H) of the Clean Air Act (42 U.S.C. 7545(o)(1)(H)), as in effect on the date of enactment of this section." What methodologies should the Treasury Department and IRS consider for the lifecycle greenhouse gas emissions of sustainable aviation fuel for the purposes of § 45Z(b)(1)(B)(iii)(II)?

For sustainable aviation fuel as well as non-aviation transportation fuel, we recommend that the model be the latest Argonne GREET as the best base model for emissions rates. The model for CFPC should be consistent with the Sustainable Aviation Fuel credit.

The following are additional comments to the emissions rates generally:

In setting the emissions rate for the CFPC, the IRS must weigh the trade-off of (a) establishing the emissions factor for a transportation fuel to be applied consistently across the industry versus (b) allowing individual taxpayers to employ carbon reduction mechanisms to lower the emissions rate of their transportation fuel.

Allowing the taxpayer's use of carbon capture, clean hydrogen or renewable power in the production process to lower the emissions factor of the transportation fuel would further incentivize carbon reduction mechanisms within the industry and across the value chain.

Similarly in the case of crop-based feedstocks, allowing regenerative farming practices, cover crops and other feedstock decarbonization methods to be considered in the calculation of emissions rates would further incentivize these practices within the industry and value chain. Such crop-based feedstocks include but are not limited to soybean oil, corn, canola, sugarcane, and camelina.

The IRS (working with the DOE) should provide specific guidance on the use of GREET to enable qualification for the CFPC. Specifically, the guidance should set forth: which version of the GREET model should be used; which fuel pathways should be used for calculation of recognized CI values; which specific parameters in the GREET model may be modified in order to reflect project-specific conditions; and how will applicants be required to demonstrate the accuracy of selected parameter values. Such guidance is required in order to put the use of GREET into practice for the consistent application of the legislation.

In the table to be published by the IRS containing the emissions rates for similar types and categories of transportation fuels, we would expect the table to include gasoline, diesel, kerosene, jet fuel, sustainable

aviation fuel, aviation turbine fuel (jet) ethanol, methanol, butanol, renewable diesel, renewable naphtha, renewable propane, biodiesel, and renewable natural gas. Even if a transportation fuel is out of the acceptable emissions factor range to qualify for the clean fuel production credit, such transportation fuel should nevertheless be included on the list with a corresponding emissions rate if it is a commonly accepted transportation fuel.

(3) Provisional Emissions Rates. Section 45Z(b)(1)(D) allows the taxpayer to file a petition with the Secretary for determination of the emissions rate for a transportation fuel which has not been established.

(a) At what stage in the production process should a taxpayer be able to file a petition for a provisional emissions rate?

A taxpayer should be able to petition for a provisional emissions rate at any stage before, during or after production so long as the petition is filed before the time the tax credit is claimed on the applicable tax return. The Clean Fuel Production Credit is only in active for a three-year period so any additional flexibility is appreciated for taxpayers to determine the emissions factor as new technologies develop.

If the IRS grants a determination on a provisional emissions rate for a transportation fuel under Section 45Z(b)(1)(D), the IRS should consider publishing the findings of this determination so that other taxpayers can benefit from this information.

(b) What criteria should be considered by the Secretary to determine the provisional emissions rate?

We agree with other trade association comments such that the IRS should consider CARB and EPA petition processes that allow for standardized formatting, which are intended to facilitate and streamline the petition process.

(4) Special Rules. Section 45Z(f)(1) provides several requirements for a taxpayer to claim the § 45Z credit, including for sustainable aviation fuel a certification from an unrelated party demonstrating compliance with the general requirements of the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) or in the case of any similar methodology, as defined in § 45Z(b)(1)(B)(iii)(II), requirements that are similar to CORSIA's requirements. With respect to this certification requirement for sustainable aviation fuel, what certification options and parties should be considered to support supply chain traceability and information transmission requirements?

Consistency with current state and local regimes already in existence would be appreciated.

(5) Coordinating Rules. Section 45Z(f)(4) states that under regulations prescribed by the Secretary, rules similar to the rules of § 52(d) apply in the case of estates and trusts. Section 45Z(f)(5) states that rules similar to § 45Y(g)(6) apply to patrons of agricultural cooperatives. Section 45Z(f)(6)(A) states that rules similar to the rules of § 45(b)(7) apply for the prevailing wage requirement. Section 45Z(f)(7) states that rules similar to the rules of § 45(b)(8) apply for the apprenticeship requirement. Is the application of the cross-referenced rules for purposes of the § 45Z credit adequately clear? What aspects of the cross-referenced rules should apply to the § 45Z credit without modification and what aspects should be modified?

Section 45Z(a)(2)(B) provides "[i]n the case of any transportation fuel produced at a qualified facility which satisfies the requirements under paragraphs (6) and (7) of subsection (f), the applicable amount shall be $1.00." And Section 45Z(a)(3)(A)(ii) provides for transportation fuel qualifying as sustainable aviation fuel that: "in the case of fuel produced at a qualified facility described in paragraph (2)(B) , by substituting "$1.75" for "$1.00"."

Section 45Z(f)(6) provides that "Subject to subparagraph (B), rules similar to the rules of section 45(b)(7) shall apply" with respect to prevailing wages. However, 45Z(f)(6)(B) provides a special rule for facilities placed in service before January 1, 2025 stating that "for purposes of subparagraph (A), in the case of any qualified facility placed in service before January 1, 2025– clause (i) of section 45(b)(7)(A) shall not apply" meaning that the prevailing wage requirements do not apply upon construction of the facility if placed in service before January 1, 2025.

We read this statutory construction to mean that: if a taxpayer produces transportation fuel at a qualified facility placed in service before January 1, 2025 that has not been altered during the taxable year, then the taxpayer can claim the bonus credit under 45Z. The IRS should consider explicitly summarizing this "grandfather rule" in the regulations as to how the wage and apprenticeship requirements apply to existing qualified facilities for purpose of the 45Z credit.

(6) Multiple Owners. How should production from a qualifying facility with more than one person having an ownership interest in such facility be allocated to such persons for purposes of § 45Z(f)(2)? Should rules similar to the rules under § 45(e)(3) apply for this purpose? If so, which aspects of § 45(e)(3) should apply without modification for this purpose and which aspects should be modified?

Similar to the clean hydrogen production tax credit, in the case of a partnership that owns a qualified facility, the clean fuel production tax credit should pass through to the partners in computing their respective tax liabilities. However, a partnership should have the flexibility to manage the allocation of clean fuel production credits contractually among the partners pursuant to the partnership agreement. Similar to the flip safe harbor rules for tax equity investments in wind projects and carbon capture projects, the IRS should issue guidance regarding the allocation of clean fuel production credits in partnership flip

transactions involving clean fuel production facilities. The flip safe harbor would provide a clear path for clean fuel produces to secure tax equity investment through the "partnership flip" model frequently used in the wind industry.

(7) Please provide comments on any other topics related to § 45Z credit that may require guidance.

A. Credit Amount and Negative Emissions Rate

Code Section 45Z(b)(1)(C)(ii) provides that in case of an emissions rate that is between 2.5 kilograms of CO2e per mmBTU and -2.5 kilograms of CO2e per mmBTU, the Secretary may round such rate of zero. This is an exception to the general rule that the Secretary may round the emissions rates under Code Section 45Z(b)(1)(B) to the nearest multiple of 5 kilograms of CO2e per mmBTU. This section indicates that Congress clearly contemplated negative emissions rates.

The IRS should clarify how the credit calculation works in the case of a transportation fuel with a negative emissions rate and specifically whether a negative emissions rate results in a credit that is higher than $1 or $1.75.

B. Co-processing Definition

Code Section 45Z(d)(5)(A)(iii) provides that a transportation fuel means a fuel which is not derived from coprocessing an applicable material (or materials derived from an applicable material) with a feedstock which is not biomass. We recommend that the IRS consider providing further guidance as to the meaning of "coprocessing" with a specific reference to the Clean Air Act (40 CFR 80.1401) which defines "co-processed" as follows:

> *co-processed* means that renewable biomass or a biointermediate was simultaneously processed with fossil fuels or other non-renewable feedstock in the same unit or units to produce a fuel that is partially derived from renewable biomass or a biointermediate.

We understand this is the commonly accepted meaning of co-processing in the industry.

C. Facility Definition

The definition of qualified facility for purposes of code Section 45Z refers to a "facility" used for the production of transportation fuels but does not a "facility" for which certain other tax credits (related to clean hydrogen and carbon capture) are "allowed under section 38 for the taxable year".

In the case where a large industrial site contains multiple units that involve both hydrogen and fuel production as well as carbon capture, it is important to understand the meaning of "facility." If the industrial complex was treated as one large facility, the availability of tax credits would be limited based on the anti-stacking rules.

The IRS should consider guidance to demonstrate that multiple units that are separate or perform distinct processes can each be treated as a separate facility regardless of common ownership, common operation, or co-use of utilities. The IRS may consider applying such guidance on the meaning of facility to other clean energy credits.